THREOSE OR LYSYL OXIDASE OR RIBOSE

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=> s l1 and l2

L4        1348 L1 AND L2

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       3663585 PRY<2002
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LAST RELOADED: Sep  7, 2007 (20070907/UP).

=> d l9 1-31 ti
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y


L9   ANSWER 1 OF 31  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Natural collagens crosslinked with non-toxic crosslinking agents
     to resist progressive spinal deformity

L9   ANSWER 2 OF 31  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Non-toxic crosslinking reagents to resist curve progression in
     scoliosis and increase disc permeability

L9   ANSWER 3 OF 31  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Methods, devices, and collagen-containing preparations for
     intervertebral disc treatment
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L9 ANSWER 4 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Use of non-toxic crosslinking reagents to improve fatigue resistance and reduce mechanical degradation of intervertebral disc and other collagenous tissues

L9 ANSWER 5 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Thiazolium as cross-link reversing agents for collagenous proteins

L9 ANSWER 6 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Endocrine disruptor screening using DNA chips of endocrine disruptor-responsive genes

L9 ANSWER 7 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Biocompatible osteogenic band made of natural, biosynthetic or synthetic materials, such as polymers, for repair of spinal disorders

L9 ANSWER 8 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Method for controlling the chemical and heat induced responses of collagenous materials

L9 ANSWER 9 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Fluid matrix comprising crosslinked remodelable collagen compositions for treating intervertebral disc degeneration

L9 ANSWER 10 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Anabolic effect of long-term estrogen replacement on bone collagen in elderly postmenopausal women with osteoporosis

L9 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Effect of high doses of oral risedronate (20 mg/day) on serum parathyroid hormone levels and urinary collagen cross-link excretion in postmenopausal women with spinal osteoporosis

L9 ANSWER 12 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI COL9A2 Allelotypes in Intervertebral Disc Disease

L9 ANSWER 13 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Elevated protein content and prolyl 4-hydroxylase activity in severely degenerated human annulus fibrosus

L9 ANSWER 14 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Polymeric system for repairing intervertebral discs

L9 ANSWER 15 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Three year followup of bone mineral density change in premenopausal women with systemic lupus erythematosus

L9 ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Tissue implant comprising collagen and a hydrated alginate gel matrix

L9 ANSWER 17 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Urinary collagen crosslinks reflect further bone loss of femoral neck in osteoporotic patients undergoing vitamin D therapy

L9 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Serum collagen crosslinks as markers of bone turnover during GH replacement therapy in growth hormone deficient adults

L9 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Bone mineral density and biochemical markers of bone turnover in healthy elderly men and women

L9 ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Evaluation of two crosslinked collagen gels implanted in the transected spinal cord

L9 ANSWER 21 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Method to detect bone and other connective tissue disorders in humans and animals by assessment of levels of native free collagen-derived crosslinks in biological fluids, and antibodies specifically immunoreactive with forms of crosslinks

L9 ANSWER 22 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Collagen crosslinking and cartilage glycosaminoglycan composition in normal and scoliotic chickens

L9 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Collagen stability and cross-linking in normal and kyphoscoliotic mouse intervertebral disks

L9 ANSWER 24 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Solubilization of low intramolecular cross-linking collagen from several tissues of carp by administration of β-aminopropionitrile

L9 ANSWER 25 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Type VI collagen of the intervertebral disc. Biochemical and electron-microscopic characterization of the native protein

L9 ANSWER 26 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Crosslinked collagen surface for cell culture that is stable, uniform, and optically superior to conventional surfaces

L9 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Mechanical properties and control of nonmuscular catch in spine ligaments of the sea urchin, Strongylocentrotus franciscanus

L9 ANSWER 28 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Scoliosis in chickens: responsiveness of severity and incidence to dietary copper

L9 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Quantitation of hydroxypyridinium crosslinks in collagen by high-performance liquid chromatography

L9 ANSWER 30 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Collagen cross-linking

L9 ANSWER 31 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Elevated hair copper level in idiopathic scoliosis. Preliminary observations

=> d l9 1 2 3 4 8 11 16 20 22 25 26 30 ti abs bib
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L9 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Natural collagens crosslinked with non-toxic crosslinking agents to resist progressive spinal deformity
AB A method of improving the resistance of collagenous tissue to mech. degradation in accordance with the present invention comprises the step of contacting at least a portion of a collagenous tissue with an effective amount of a crosslinking reagent. Methods and devices for enhancing the body's own efforts to stabilize disks in scoliotic and

other progressively deforming spines by increasing collagen crosslinks. This stability enhancement is caused by reducing the bending hysteresis and increasing the elasticity and bending stiffness of progressively deforming spines, by injecting non-toxic crosslinking reagents into the convex side of disks involved in the potential or progressing deformity curve. Alternatively, contact between the tissue and the crosslinking reagent is effected by placement of a time-release delivery system directly into or onto the target tissue. Methods and devices that use crosslinking agents for increasing the permeability of an intervertebral disk, improving fluid flux to the intervertebral disk, and increasing the biol. viability of cells within the intervertebral disk are provided.

AN 2007:873614 HCAPLUS <<LOGINID::20070911>>
DN 147:220111
TI Natural collagens crosslinked with non-toxic crosslinking agents to resist progressive spinal deformity
IN Hedman, Thomas P.
PA USA
SO U.S. Pat. Appl. Publ., 17pp., Cont.-in-part of U.S. Ser. No. 786,861.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2007183973	A1	20070809	US 2006-346464	20060202	<--
	US 2003049301	A1	20030313	US 2002-230671	20020829	<--
	US 2004253219	A1	20041216	US 2004-786861	20040224	<--
	US 2007196351	A1	20070823	US 2007-712684	20070228	<--
	US 2007202143	A1	20070830	US 2007-726790	20070322	<--
PRAI	US 2001-316287P	P	20010831	<--		
	US 2002-230671	A2	20020829			
	US 2003-498790P	P	20030828			
	US 2004-786861	A2	20040224			
	US 2006-346464	A2	20060202			
	US 2007-712684	A2	20070228			

L9 ANSWER 2 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Non-toxic crosslinking reagents to resist curve progression in scoliosis and increase disc permeability
AB A method of improving the resistance of collagenous tissue to mech. degradation in accordance with the present invention comprises the step of contacting at least a portion of a collagenous tissue with an effective amount of a crosslinking reagent, i.e., genipin , ribose, threose, and lysyl oxidase . Methods and devices for enhancing the body's own efforts to stabilize disks in scoliotic spines by increasing collagen crosslinks. This stability enhancement is caused by reducing the bending hysteresis and increasing the bending stiffness of scoliotic spines, by injecting non-toxic crosslinking reagents into the convex side of disks involved in the scoliotic curve. Alternatively, contact between the tissue and the crosslinking reagent is affected by placement of a time-release delivery system directly into or onto the target tissue. Methods and devices that use crosslinking agents for increasing the permeability of an intervertebral disk, improving fluid flux to the intervertebral disk, and increasing the biol. viability of cells within the intervertebral disk are provided.
AN 2004:1080506 HCAPLUS <<LOGINID::20070911>>
DN 142:62696
TI Non-toxic crosslinking reagents to resist curve progression in scoliosis and increase disc permeability
IN Hedman, Thomas P.
PA University of Southern California, USA
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 230,671.

CODEN: USXXCO
DT Patent
LA English
FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004253219	A1	20041216	US 2004-786861	20040224 <--
	US 2003049301	A1	20030313	US 2002-230671	20020829 <--
	AU 2004268628	A1	20050310	AU 2004-268628	20040827
	CA 2536415	A1	20050310	CA 2004-2536415	20040827
	WO 2005020862	A1	20050310	WO 2004-US28039	20040827
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	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1660001	A1	20060531	EP 2004-782506	20040827
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	JP 2007504162	T	20070301	JP 2006-524909	20040827
	US 2007183973	A1	20070809	US 2006-346464	20060202 <--
	US 2007196351	A1	20070823	US 2007-712684	20070228 <--
	US 2007202143	A1	20070830	US 2007-726790	20070322 <--
PRAI	US 2001-316287P	P	20010831 <--		
	US 2002-230671	A2	20020829		
	US 2003-498790P	P	20030828		
	US 2004-786861	A	20040224		
	WO 2004-US28039	W	20040827		
	US 2006-346464	A2	20060202		
	US 2007-712684	A2	20070228		

L9 ANSWER 3 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Methods, devices, and collagen-containing preparations for intervertebral disc treatment
AB A therapeutic method for treating mammalian intervertebral disks comprises injecting under pressure a preparation of crosslinked collagen into the intra-discal space. The intervertebral distance in injected disks is immediately increased by the treatment. At least some mech. properties of the treated vertebral column are preserved or partially restored. The method may be used to relieve back pain in patients, to increase patient height and to stabilize the spinal column. The therapeutic method may result in at least a partial regeneration of the nucleus pulposus, and/or development of cartilaginous or fibrocartilaginous tissues or dense fibrous tissues.
AN 2003:472329 HCAPLUS <<LOGINID::20070911>>
DN 139:26712
TI Methods, devices, and collagen-containing preparations for intervertebral disc treatment
IN Pitaru, Shahar; Noff, Matitiau
PA Colbar R & D Ltd., Israel
SO PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003049669	A2	20030619	WO 2002-IL997	20021210 <--

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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
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    AU 2002358957        A1    20030623    AU 2002-358957         20021210 <--
    JP 2005511207        T     20050428    JP 2003-550720         20021210 <--
    MX 2004PA05707       A     20050620    MX 2004-PA5707         20040610 <--
PRAI US 2001-337145P     P     20011210  <--
    WO 2002-IL997        W     20021210

L9   ANSWER 4 OF 31  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Use of non-toxic crosslinking reagents to improve fatigue
     resistance and reduce mechanical degradation of intervertebral disc and
     other collagenous tissues
AB   A method of improving the resistance of collagenous tissue to
     mech. degradation in accordance with the present invention comprises the step
     of contacting at least a portion of a collagenous tissue with an
     effective amount of a crosslinking reagent.  The
     crosslinking reagent includes a crosslinking agent such
     as genipin and/or proanthocyanidin.  Further, the
     crosslinking reagent may include a crosslinking agent in
     a carrier medium.  The collagenous tissue to be contacted with
     the crosslinking reagent is preferably a portion of an
     intervertebral disk or articular cartilage.  The contact between the
     tissue and the crosslinking reagent is effected by injections
     directly into the select tissue using a needle.  Alternatively, contact
     between the tissue and the crosslinking reagent is effected by
     placement of a time-release delivery system such as a gel or ointment, or
     a treated membrane or patch directly into or onto the target tissue.
     Contact may also be effected by, for instance, soaking.
AN   2003:202381  HCAPLUS <<LOGINID::20070911>>
DN   138:226799
TI   Use of non-toxic crosslinking reagents to improve fatigue
     resistance and reduce mechanical degradation of intervertebral disc and
     other collagenous tissues
IN   Hedman, Thomas P.
PA   University of Southern California, USA
SO   PCT Int. Appl., 25 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 5
     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
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PI   WO 2003020031        A1     20030313    WO 2002-US27677        20020829 <--
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            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
            CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
            NE, SN, TD, TG
    CA 2458821           A1     20030313    CA 2002-2458821        20020829 <--
    AU 2002335683        A1     20030318    AU 2002-335683         20020829 <--
    EP 1432312           A1     20040630    EP 2002-770446         20020829 <--
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

JP	2005501874	T	20050120	JP 2003-524354	20020829 <--
CN	1578624	A	20050209	CN 2002-821684	20020829 <--
PRAI US	2001-316287P	P	20010831 <--		
WO	2002-US27677	W	20020829		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Method for controlling the chemical and heat induced responses of collagenous materials
AB The present invention provides a method for strengthening collagen in collagenous tissue which uses the controlled application of heat to induce shrinkage or contraction of the collagen in the tissue and a crosslinking means which cross-links the shrunken collagen in the tissue thereby stabilizing and strengthening collagenous tissue. In particular, the present invention provides an in vivo method for treating joint instability problems, controlled manipulation of skin structure and properties, and other problems involving collagen-containing tissues. The present invention further provides an in vitro method for stabilizing collagenous tissue for use in vivo or in vitro. Further, the present invention provides a method for treating collagenous tissue and testing the strength and stability of the treated tissue.
AN 2002:309727 HCAPLUS <<LOGINID::20070911>>
DN 136:304120
TI Method for controlling the chemical and heat induced responses of collagenous materials
IN Aksan, Alptekin; McGrath, John J.
PA Board of Trustees of Michigan State University, USA
SO U.S., 18 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6375672	B1	20020423	US 2000-532327	20000321 <--
PRAI US 1999-125521P	P	19990322 <--		

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Effect of high doses of oral risedronate (20 mg/day) on serum parathyroid hormone levels and urinary collagen cross-link excretion in postmenopausal women with spinal osteoporosis
AB This work describes the biol. effects of risedronate, a pyridinyl bisphosphonate, on bone and assessed the safety and tolerability of risedronate when given at high doses, with or without calcium, to postmenopausal women with spinal osteoporosis. This study included 32 postmenopausal white women with at least one radiog. confirmed vertebral compression fracture. The patients were randomized to one of four different dose regimen groups: (1) R-P, risedronate 20 mg/day for 14 days, followed by placebo for 42 days; (2) R-CP-P, risedronate 20 mg/day for 14 days, followed by elemental calcium 1000 mg/day and placebo for 14 days, then by placebo for 28 days; (3) R-CP-R-CP, risedronate 20 mg/day for 7 days, followed by elemental calcium 1000 mg/day and placebo for 21 days, then risedronate 20 mg/day for 7 days, and finally elemental calcium 1000 mg/day and placebo for 21 days; and (4) P, placebo for 56 days. The biol. response was investigated by measuring serum calcium, parathyroid hormone (PTH), and 2-h urinary pyridinoline/creatinine (Pyr/Cr) and deoxypyridinoline/creatinine (DPyr/Cr) ratios before treatment and on days 3, 7, 14, 21, 28, 35, 42, 49, 56, and 84. Overall, there were no

consistent trends between the effects of treatment and placebo on serum calcium. In groups R-P, R-CP-P, and R-CP-R-CP, mean serum PTH levels were elevated above basal values for the entire 56-day treatment period and remained elevated, although to a lesser extent, at the day-84 follow-up visit. The effect of calcium supplementation on PTH was variable. Urinary Pyr/Cr and DPyr/Cr ratios were decreased from basal values over the entire study period in all groups receiving risedronate. The maximum percent decreases from basal values for Pyr/Cr and DPyr/Cr were -46.9% and -58.8%, resp., on day 49 in the R-CP-R-CP group. In conclusion, risedronate given orally at 20 mg/day, continuously for 7 or 14 days, resulted in the expected biol. response in osteoporotic women. The time course of changes in PTH levels following cessation of treatment was unaffected by calcium supplementation. There was no evidence of a PTH-mediated rebound in bone resorption following cessation of therapy. Furthermore, as determined by collagen cross-link data, patients did not show an excessive reduction in bone turnover.

AN 2001:93177 HCAPLUS <<LOGINID::20070911>>
DN 135:132365
TI Effect of high doses of oral risedronate (20 mg/day) on serum parathyroid hormone levels and urinary collagen cross-link excretion in postmenopausal women with spinal osteoporosis
AU Zegels, B.; Eastell, R.; Russell, R. G. G.; Ethgen, D.; Roumagnac, I.; Collette, J.; Reginster, J.-Y.
CS Bone and Cartilage Metabolism Unit, University of Liege, Liege, Belg.
SO Bone (New York) (2001), 28(1), 108-112
CODEN: BONEDL; ISSN: 8756-3282
PB Elsevier Science Inc.
DT Journal
LA English
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Tissue implant comprising collagen and a hydrated alginate gel matrix
AB A biomech. implant is described which comprises at least two matrix components, the first matrix component being composed of collagen with a porous macrostructure with the ability to withstand tensile or shear forces, the second matrix component being a hydrated alginate gel which substantially fills the porous macrostructure of the first component and exerts a swelling pressure, the implant addnl. comprising a population of cells comprising chondrocytes, fibrochondrocytes, fibroblasts or osteoblasts, or precursors thereof. Collagens gels with chondrocytes were placed in wells of a tissue culture plate and a 2% alginate in Earle's buffered salt solution containing 4x106 cells/mL in DMEDM and 10% fetal calf serum was gently layered on top of the collagen gel or sponge. The tissue culture plate was centrifuged at 100 g for 5 min to incorporate the alginate and cell suspension within the collagen gel or sponge. Crosslinking of the alginate was affected by bathing the construct in a solution of 100 mM CaCl2 in DMEM/10% fetal calf serum. The tangents modulus and equilibrium modulus of the gel was 85, and 32 Pa, resp.
AN 1998:624018 HCAPLUS <<LOGINID::20070911>>
DN 129:250239
TI Tissue implant comprising collagen and a hydrated alginate gel matrix
IN Lee, David Alan; Bader, Daniel Lawrence; Stephens, Myra Deboreh
PA University College London, UK; Queen Mary & Westfield College
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	WO 9840111	A1	19980917	WO 1998-GB673	19980306 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9865066	A	19980929	AU 1998-65066	19980306 <--
	EP 1019109	A1	20000719	EP 1998-910834	19980306 <--
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL				
	JP 2001514551	T	20010911	JP 1998-539340	19980306 <--
	US 6306169	B1	20011023	US 1998-188165	19981109 <--
PRAI	GB 1997-4749	A	19970307 <--		
	WO 1998-GB673	W	19980306 <--		

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Evaluation of two crosslinked collagen gels implanted in the transected spinal cord
AB In previous expts., we have shown that spinal axons grow into a collagen matrix implanted between the stumps of a transected spinal cord. However, the matrix became denatured after 2 to 3 mo. To improve the stability and the durability of the collagen gel implants, collagen was copptd. with chondroitin 6-sulfate (C-6-S) or chemical crosslinked with carbodiimide (CD). The spinal cords were taken out after 3 days, 1, 3, or 6 mo and analyzed using different histol. and tracing techniques. The crosslinked collagen matrixes underwent major structural changes. Crosslinking treatments improved the stability of collagen implants which withstood at least 6 mo. Axons revealed with DiI or silver staining crossed the proximal interface and grew into the bioimplants. Some axons were also followed across the distal bioimplant-spinal interface in DiI treated tissues. This study suggests that crosslinking the collagen hydrogel has improved the mech. properties of the matrix, modified the normal scarring process, and favored axonal regeneration.
AN 1993:240878 HCAPLUS <<LOGINID::20070911>>
DN 118:240878
TI Evaluation of two crosslinked collagen gels implanted in the transected spinal cord
AU Marchand, R.; Woerly, S.; Bertrand, L.; Valdes, N.
CS Cent. Rech. Neurobiol., Hop. Enfant-Jesus, Quebec, QC, G1K 7P4, Can.
SO Brain Research Bulletin (1993), 30(3-4), 415-22
CODEN: BRBUDU; ISSN: 0361-9230
DT Journal
LA English

L9 ANSWER 22 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Collagen crosslinking and cartilage glycosaminoglycan composition in normal and scoliotic chickens
AB The amts. of lysine-derived crosslinks in collagens from tendon, cartilage, intervertebral disk, and bone and changes in the composition of sternal cartilage glycosaminoglycans were estimated in two lines of chickens, a control-isogenic line and a line that develops scoliosis. In the scoliotic line, scoliosis first appears at 3-4 wk and progressively increases in severity and incidence so that 90% of the birds express the lesion by week 10. It was reported previously that cartilage, tendon, and bone collagens from scoliotic birds are more soluble than corresponding collagens from normal birds. Herein, collagen crosslinking and altered proteoglycan metabolism are examined as

possible mechanisms for the differences in collagen solubility At 1 wk of age, there were fewer reducible crosslinking amino acids (hydroxylsinonorleucine, dihydroxylysinonorleucine, and lysinonorleucine) in collagens from sternal cartilage and tendon in the scoliotic line than in the isogenic line. However, by week 3 and at weeks 5 or 7 values were similar in both groups. The amts. of hydroxypyridinium in vertebral bone and intervertebral disk collagen were also similar in both groups of birds. Consequently, differences in collagen crosslinking do not appear to be a persistent developmental defect underlying the expression of scoliosis in the model. However, differences were observed in cartilage proteoglycans and glycosaminoglycans from the scoliotic line that were not present in cartilage from the isogenic line. The average mol. weight of the uronide-containing glycosaminoglycans was 30% less in the scoliotic line than in the isogenic line, i.e., 12,000 compared to 18,000. The size distribution of cartilage proteoglycans from the scoliotic line also differed from that of proteoglycans from the isogenic line. An overly sulfated chondroitin also appeared to be a minor component of the glycosaminoglycans in cartilage from the scoliotic line. This chondroitin was not observed in cartilage from the isogenic line of chickens.

AN 1989:21883 HCAPLUS <<LOGINID::20070911>>
DN 110:21883
TI Collagen crosslinking and cartilage glycosaminoglycan composition in normal and scoliotic chickens
AU Greve, Carl; Opsahl, William; Reiser, Karen; Abbott, Ursula; Kenney, Cristina; Benson, Daniel; Rucker, Robert
CS Dep. Nutr., Univ. California, Davis, CA, 95616, USA
SO Biochimica et Biophysica Acta, General Subjects (1988), 967(2), 275-83
CODEN: BBGSB3; ISSN: 0304-4165
DT Journal
LA English

L9 ANSWER 25 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Type VI collagen of the intervertebral disc. Biochemical and electron-microscopic characterization of the native protein
AB The collagen framework of the intervertebral disk contains 2 major fibril-forming collagens, types I and II. Smaller amts. of other types of collagen are also present. On examination of the nature and distribution of these minor collagens within bovine disk tissue, type VI collagen was found to be unusually abundant. It accounted for .apprx.20% of the total collagen in calf nucleus pulposus, and .apprx.50% in the annulus fibrosus. By serially digesting disk tissue with chondroitin ABC lyase and Streptomyces hyaluronidase, native covalent polymers of type VI collagen could be extracted Electron micrographs of this material prepared by rotary shadowing revealed the characteristic dimensions of tetramers and double tetramers of type VI mols., with their central rods and terminal globular domains. Mol.-sieve column chromatog. on agarose under nonreducing, nondenaturing conditions gave a series of protein peaks with mol. sizes equivalent to the tetramer, double tetramer, and higher multimers. On SDS-PAGE after SS bond cleavage, these fractions of type VI collagen all showed a main band at mol. weight (Mr) 140,000 and 4 lesser binds of Mr 180,000-240,000. On electrophoresis without SS bond cleavage in agarose-2.4% polyacrylamide only dimeric (6 chains) and tetrameric (12 chains) forms of type VI mols. were present. The ability to extract all the type VI collagen of the tissue in 4M guanidinium chloride, and the absence of aldehyde-mediated crosslinking residues on direct anal., showed that, in contrast with most matrix collagens, type VI collagen does not function as a covalently crosslinked structural polymer.
AN 1987:631753 HCAPLUS <<LOGINID::20070911>>
DN 107:231753
TI Type VI collagen of the intervertebral disc. Biochemical and

electron-microscopic characterization of the native protein
AU Wu, Jiann Jiu; Eyre, David R.; Slayter, Henry S.
CS Sch. Med. Med., Univ. Washington, Seattle, WA, 98195, USA
SO Biochemical Journal (1987), 248(2), 373-81
CODEN: BIJOAK; ISSN: 0306-3275
DT Journal
LA English

L9 ANSWER 26 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Crosslinked collagen surface for cell culture that is stable, uniform, and optically superior to conventional surfaces
AB A new type of collagen surface for use with cultures of peripheral nervous system cells is described. Collagen is derivatized to plastic culture dishes by a crosslinking reagent, 1-cyclohexyl-3-(2-morpholinoethyl)carbodiimide-metho-p-toluenesulfonate (carbodiimide), to form a uniform and durable surface for cell attachment and growth that allows dry storage, long-term culture, and improved microscopy. Surfaces of collagen derivatized to plastic were compared to surfaces of adsorbed or ammonia-polymerized collagen in terms of collagen binding and detachment, growth of dorsal root ganglion cells, and electron microscopic appearances. Derivatized collagen surfaces retained more collagen and showed much less evidence of degradation and cellular damage over periods of many weeks than did conventional adsorbed surfaces. Long-term survival of cells on derivatized collagen was far superior to that on the other surfaces, with .apprx.90% of cultures still viable after 10 wk. Transmission electron microscopy showed an organized layer of single fibrils that supported cell growth well, and SEM demonstrated an increased uniformity of derivatized collagen surfaces compared to ammoniated collagen surfaces. Applications for this improved substrate surface are discussed.
AN 1986:65340 HCAPLUS <<LOGINID::20070911>>
DN 104:65340
TI Crosslinked collagen surface for cell culture that is stable, uniform, and optically superior to conventional surfaces
AU Macklis, Jeffrey D.; Sidman, Richard L.; Shine, H. David
CS Dep. Neurosci., Child. Hosp., Boston, MA, 02115, USA
SO In Vitro (1985), 21(3, pt. 1), 189-94
CODEN: ITCSAF; ISSN: 0073-5655
DT Journal
LA English

L9 ANSWER 30 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Collagen cross-linking
AB The biochem. of collagen crosslinking was summarized, and an abnormal crosslinking structure in collagen of anulus fibrosus in a patient with Ehlers-Danlos syndrome subtype VI was reported. In addition to the normal hydroxypyridinium (HP) crosslink , collagen contained a more basic HP crosslink which is probably lysine-HP. The 2 crosslink species are present in approx. equal amts. and together comprise .apprx.1 residue/ collagen mol. This abnormal crosslink structure was also observed in bone collagen of humans and some other species.
AN 1983:213724 HCAPLUS <<LOGINID::20070911>>
DN 98:213724
TI Collagen cross-linking
AU Eyre, David R.
CS Dep. Orthop. Surg., Harvard Med. Sch., Boston, MA, USA
SO Am. Acad. Orthop. Surg. Symp. Heritable Disord. Connect. Tissue (1982), Meeting Date 1980, 43-58. Editor(s): Akeson, Wayne H.; Bornstein, Paul; Glimcher, Melvin J. Publisher: Mosby, St. Louis, Mo.
CODEN: 49SJAU
DT Conference
LA English

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=> s scoliosis or spine or spinal or (nucleus pulposis)

           439 SCOLIOSIS
          8099 SPINE
         69016 SPINAL
        266072 NUCLEUS
             2 PULPOSIS
             2 NUCLEUS PULPOSIS
               (NUCLEUS(W)PULPOSIS)
L1       74855 SCOLIOSIS OR SPINE OR SPINAL OR (NUCLEUS PULPOSIS)

=> s collagen or collagenous or (invertebrate disk)

         93286 COLLAGEN
          4217 COLLAGENOUS
         17767 INVERTEBRATE
        135338 DISK
             2 INVERTEBRATE DISK
               (INVERTEBRATE(W)DISK)
L2       94811 COLLAGEN OR COLLAGENOUS OR (INVERTEBRATE DISK)

=> s crosslink or crosslinking or genipin or proanthocyanidin or threose or lysyl
oxidase or ribose

         16009 CROSSLINK
        205062 CROSSLINKING
           351 GENIPIN
          1849 PROANTHOCYANIDIN
           569 THREOSE
          6827 LYSYL
        124473 OXIDASE
          1066 LYSYL OXIDASE
               (LYSYL(W)OXIDASE)
         28471 RIBOSE
L3      243635 CROSSLINK OR CROSSLINKING OR GENIPIN OR PROANTHOCYANIDIN OR
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